Questions for the California Energy Commission Consultation Workshop on Forestry Protocol Guidance to the California Climate Action Registry

The questions provided below are not exhaustive but are intended to provide a framework for an open-ended discussion of the elements of a forestry protocol. Rather than constrain discussion solely to the options provided in the draft protocols, individuals are encouraged to consider all reasonable options that would make the protocols more user-friendly or otherwise improve them. Please note that some options may be limited by legislation. Individuals with responses to any or all of these questions are encouraged to provide them by May 24, 2004; however, the staff will accept comments until **5 p.m. on June 3, 2004**. Please send written comments to:

Docket Unit
California Energy Commission
Docket No. 01-GGE-1
1516 Ninth Street, MS 4
Sacramento, California 95814-5512

Or, parties may submit comments by e-mail to [DOCKET@energy.state.ca.us] or by fax to (916) 654-4354.

Under each topic listed below are the pages in the protocols and the relevant section of legislation that refer to that topic. As an alternative, if you are viewing these documents on a computer, you may choose to do a word search. The acronyms for the protocols and legislation are as follows: Forest Sector Protocol (FSP), Forest Sector Certification Protocol (FSCP), Forest Project Protocol (FPP), Forest Project Certification Protocol (FPCP), and Senate Bill 812 (SB 812).

Boundaries: Geographical, Organizational, and Operational
An inventory reporting protocol must define the rules to report which greenhouse gas (GHG) emission sources are included in an inventory; these rules define boundaries. Boundaries, or rules of inclusion and exclusion, may include, but are not limited to, geographical, organizational, or operational boundaries:

- A geographical boundary is a physical location (e.g., a geographic boundary could specify that all sources within California or the United States are to be reported and those sources outside of the United States are to be excluded).
- An organizational boundary is defined by legal or financial criteria (e.g., legal ownership of the source, or some portion of it, or control of the operation of the source).
- An operational boundary describes an operation, activity, or type of source and may serve to categorize or sub-divide sources. For example: (1) sources may be divided into transportation, on-site combustion, process or fugitive emission sources; or, (2) for forest operations, sources may be divided into above-ground living biomass, below-ground living biomass, above-ground dead biomass, or soil emissions sources.

Also, operational boundaries may include or exclude sources based on practical considerations such as the magnitude of the potential emissions and the cost of measuring and reporting those emissions. For example, GHG emissions from soil may not change significantly under different conditions but could be relatively expensive to include in an inventory. Thus, a protocol may choose to exclude this source.

These boundary conditions must all be applied to determine the inclusion, exclusion, or categorization of a given source. Hence, a reporter might say of a source, "It's in California, I own it, and it is in an applicable category; therefore, it's in the inventory."

Additional information on boundaries is available from the FSP pages 12-15 and FSCP pages 14-15.

1. How should the three types of boundaries be delineated, (i.e., what should a forestry inventory include and exclude?)

Entity Baseline
In a very general sense, an entity baseline refers to an inventory of GHG emissions reported from all sources and operations of a discrete corporation, government agency, or other organization. The definition of an entity baseline varies according to different programs and protocols (as does the value or purpose of the entity baseline). The baseline or reference case may be actual data for a given year, a hypothetical projection based on actual data, or some other measure. An entity baseline may be useful to characterize trend information at the entity level, provide context for projects, assess project leakage (discussed below), or other purposes.

Additional information on entity baselines is available from the FSP pages 15-18, 33-35 and FSCP pages 15.

2. What should be the purpose of establishing a forest entity baseline?

3. What elements should be required to establish a forest entity baseline?

4. Should a forest entity baseline be required for participants that report a forest project? Why or why not?

Project Baseline and Additionality
A project baseline is information used as a basis for measurement or comparison of GHG emissions over a period of time and a reference case used to calculate GHG reductions. Project reductions would be the difference between actual emissions and the project baseline. In the case of forestry, an increase in carbon stocks (trees and other material) is described as a "reduction" in GHG emissions. Policy makers must decide what constitutes a legitimate reduction and that decision will determine a project baseline.

Depending on how a reduction is defined and used, there may be a net benefit or detriment to the environment. Environmental benefit could occur if a project achieves

real reductions, there is no associated increase in emissions (leakage), and any credits granted for the reductions do not cause an increase in emissions greater than the reduction in emissions. Environmental detriment could occur if reductions are not real, there are associated emissions, or credits granted cause an increase in emissions greater than the actual reduction.

A protocol could define a legitimate project reduction as those reductions achieved that exceed any requirements set by law. In this case, existing law would be the project baseline. Or, a protocol could define a legitimate reduction as those reductions achieved that exceed business as usual (the current, actual practice). In this case, business as usual would determine the project baseline. Business as usual may differ from that required by law (but must meet or exceed the law) and as a result, different baselines may yield significantly different reductions.

Additionality
Additionality refers to a situation where a project results in reductions additional to those that would have taken place in the absence of the project activity. Some programs may choose to incorporate additionality into the project baseline.

Additional information on project baselines and additionality is available from the SB 812 section 2 (Health and Safety Code section 42823 (d)(1)), FPP pages 13-20, 23-44, and FPCP pages 12-14.

5. Should a project baseline be based on the Forest Practice Rules, on business as usual, or some other measure? Why or why not? What are the economic and/or environmental benefits and impacts of the various approaches to setting a baseline?
6. If Forest Practice Rules are used as a project baseline, how would you suggest applying them to determine a forest management project baseline?
7. For forest conservation projects, what should be used as a baseline for calculating reductions? What should be used to demonstrate additionality? What documentation should be required to verify baselines and additionality?
8. Should proprietary models be allowed in establishing baselines? If so, who should approve these models?
9. How should baselines be established for projects that are based on historical data?
10. Would you be able to quantify a project baseline based on the guidance given in the draft protocols?
11. What aspects of establishing a baseline could be subject to gaming? How can this be prevented?

Leakage
Leakage is an increase in emissions outside a project boundary resulting either directly or indirectly from project activities. For example, actions taken by an entity to reduce emissions within a project boundary may be diminished by actions which increase emissions outside the project boundary. Market competition may result in leakage if actions taken by a company to reduce GHG emissions leads to fewer products, and a competitor increases production to capture market share. If a product is less available to a market as a result of a project, other products with their associated emissions may be substituted. Programs and protocols categorize these types of leakage variously as

"activity-shifting" or "market-based." Projects which experience leakage have reduced environmental benefit, or if reductions are used as credits to increase emissions elsewhere, may actually cause a net increase in emissions depending on the amount of leakage.

Additional information on leakage is available from the FPP pages 20-22, 46, 64-66, 107-108 and FPCP pages 12, 15.

12. How should leakage be treated in a GHG emissions reporting protocol? A forestry protocol?
13. Should a forestry reporting protocol incorporate methodologies for tracking and quantifying various types of leakage? Which types?
14. Should project reductions be adjusted for leakage? Do you see possible environmental impacts due to leakage occurring from the application of the draft protocols? If so, please provide examples.

Permanence and Easements
To provide lasting environmental benefit, programs and protocols may require that a project provide permanent reductions in emissions. For example, reducing the emissions from the combustion of fossil-fuel through efficiency improvements are considered permanent reductions. Some forestry activities can reduce atmospheric emissions (or sequester carbon), but only for a limited time since carbon stored in trees or wood products is eventually released to the atmosphere, either through decay, harvest, or fire.   Using easements can help ensure that an environmental benefit is maintained in a forestry project. An easement is a recorded deed restriction on all or part of a property, where specified property rights are voluntarily given up by the landowner. In this case, a conservation easement would permanently dedicate to forest use, in perpetuity, forest lands specified as a project. Holders of conservation easements may be governmental bodies, a charitable corporation, a charitable association, or a charitable trust.

Additional information on permanence and easements is available from the SB 812 section 2 (Health and Safety Code sections 42823(d)(2), 42823(d)(3)), FPP pages 50, 58-63, and FPCP pages 11.

15. Should qualifying forest projects be of any duration chosen by the forest entity? Why or why not?
16. What are the implications of a project ending, but having a permanent easement?
17. What should be the requirements and safeguards of a permanent easement used to qualify forest projects?
18. How would an easement holder ensure a permanent easement is maintained at the quality level agreed to in perpetuity? Who should monitor and enforce the conditions of an easement?

Measurement
A GHG emissions reporting protocol for forest entities should include methods for measuring, estimating, and projecting forest carbon stocks. Since measurements in the forest must, of necessity, be a sampling exercise, a sampling methodology should be

reported along with the reported measurements. A sampling methodology would likely play a significant role in the final accuracy of the reported inventory. A GHG emissions reporting protocol that provides sufficient guidance on an acceptable sampling methodology could maintain consistency and comparability among reported inventories. Sufficient guidance for measurement methods, changes in measurement methods, and the use of models could also strengthen a forest protocol.

Additional information on measurement is available from the FSP pages 18-38, FSCP pages 16-20, FPP pages 23-51, and FPCP pages 12-17.

19. What should be the requirements for a sampling methodology in a forestry reporting protocol?
20. To what extent should sampling and measurement uncertainty (degree of error) be incorporated into a forestry reporting protocol? How should uncertainty be handled?
21. Should there be discounting of reductions (carbon stocks), based on uncertainty?
22. To what extent and how should models be used to calculate reductions? Who should approve the use of models?
23. How should wood products be handled?
24. Would you be able to quantify the entity baseline, project baseline, and reductions based on the guidance given in the protocol?
25. To what extent can the measurements be gamed and how can this be minimized?

Significant Events
Forests are subject to rapid releases of sequestered carbon during fires and gradual loss of carbon through pest infestations. These significant events could either be accounted for in a GHG emission inventory by adjusting the project and/or entity baseline or not. An unchanged project baseline diminishes reductions attributable to the project; however, the project baseline maintains its integrity. An adjusted project baseline does not penalize the project owner for events beyond its control; however, the project baseline may lose its integrity. As in the discussion of baselines, policy makers must determine legitimate reductions.

Additional information on significant events is available from the FSP pages 17, 38, FPP page 68, and FPCP page 14.

26. How should fire, pest infestation, and other significant events be treated in a GHG emissions reporting protocol?
27. Should measures taken to prevent fire, such as forest thinning and fuel reduction, be accommodated in a forest protocol?

Reporting
A GHG emissions reporting protocol must specify required inventory reporting contents, procedures responsibilities of entities. The consistency, comparability, and transparency of a GHG emissions reporting protocol will, in part, be determined by the reporting requirements.

Additional information on reporting is available form the FPP pages 8-10, 51, 56.

28. Should forest entities be required to report their biological emissions (harvesting, thinning, fires, insects, etc.) if they participate in the Registry or, as is now required, just once they want to report a project?
29. Should non-biological emissions that occur as a result of a project be reported as part of the project's emissions?

Certification
A GHG emissions reporting protocol may require a third-party to assess the conformance of an inventory with the protocol. This assessment, or certification, would provide an objective opinion on the accuracy, completeness, and conformance of the inventory. A certifier's objectivity would be protected and maintained by well defined protocols that clearly specify inventory elements and the certifier's actions.

Additional information on certification is available from the FSP pages 139-43, all pages of the FSCP, FPP pages 52-56, and all pages of the FPCP.

30. What is an appropriate timeframe interval to measure forest entity and project activities?
31. What should a certifier do to certify a forest inventory?
32. What is an appropriate Minimum Quality Standard for the reported inventory?

Public Access to Information (Transparency)
Transparency is the ability to independently assess the validity of given information. Public access to data and the underlying assumptions and the rules (protocols) used to compile and calculate emissions can improve transparency. Programs and protocols that provide public transparency create greater confidence in reported data. Lack of transparency will lead to less credibility of reported data. A protocol must balance the need for transparency with the need to keep confidential sensitive or proprietary business information.

Additional information on transparency is available from the SB 812 section 2 (Health and Safety Code section 42823(h)), FSP pages 12, 21, 43, FSCP pages 22, FPP pages 27, 56, and FPCP pages 22.

33. What data should be accessible to the public? Do you have suggestions for changes to the draft protocols that would improve transparency? Please provide specific recommendations.

Application of Protocols to Achieve Greenhouse Gas Reductions

34. Are the protocols clear to complete reporting requirements and obtain greenhouse gas reductions goals? Do you believe that application of the draft protocols will meet a reasonable standard of accuracy in identifying changes in greenhouse gas emissions or reductions? Please provide any specific changes you believe would result in a reasonable improvement in the proposed protocols.
35. Would you recommend any user-friendly changes?